PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Kliewe	§	Group Art Unit: 2124
	§	
	§	Examiner: Mitchell, Jason D
Serial No.: 10/005,140	§	
	§	
Filed: December 5, 2001	§	Attorney Docket No. AUS920010989US1
	§	Intellectual Property Law Department
	§	International Business
Title: System and Method for Testing and	§	Machines Corporation
Promoting Database Update Code	§	Intellectual Property Law Dept.
	§	11400 Burnet Road
	§	Austin, Texas 78758

DECLARATION UNDER 37 C.F.R. § 1.131

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

BEST AVAILABLE COPY

John Kliewe declares as follows:

1. I am an Applicant for the patent application entitled "System and Method For Testing And Promoting Database Update Code," Serial No. 10/005,140, filed December 5, 2001, and an inventor of the subject matter described and claimed therein.

2. Prior to July 31, 2001, I completed and reduced to practice, in the United States of America, the invention described and claimed in the subject application, as evidenced by the following:

    a) I entered an "Information Document" into an IBM Problem Log Database, which described a procedure for developers to follow in order to use a SPUFI Machine. A copy of the "Information Document" entered into the IBM Problem Log Database is attached as "Exhibit A" hereto.

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                                      Kliewe – 10/005,140

PATENT

b) The date deleted from Exhibit A is prior to July 31, 2001.

c) I submitted IBM Invention Disclosure Form No. AUS8-2001-0955 attached as "Exhibit B" hereto, which describes the invention described and claimed in the subject application.

d) Each of the dates deleted from Exhibit B is prior to July 31, 2001.

3. I further declare that all statements made herein of my own knowledge and all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful and false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of United States Code and that such willful and false statements may jeopardize the validity of the above-referenced application and any patent issuing therefrom.

FURTHER DECLARANT SAYETH NOT.

John Kliewe

Date: 1-19-05

John Kliewe

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                                 Kliewe - 10/005,140

** TOTAL PAGE.02 **

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EXHIBIT A

Problem Log Database

Information Document - SPUFI Machine

Created by: John Kliewe on ▓▓▓▓▓▓ at 05:51:09 PM
Last Modified by: Joe Graham on 05/22/2003 at 10:10:22 AM

Title:

SPUFI Machine

Detailed Description:

Currently the following applications use the automated process known as "The SPUFI Machine" for running production SPUFIs :

    ICFSUS
    ICFSAM
    ICPSEM
    RICS

The process requires processing by developers, a SPUFI coordinator, and an OPC application.

Developer Processing

Each developer must have a PDS under their own id called yourid.SPUFI.xxxx, where yourid is the developer's tso id and xxxx is the application name. (Example : D212709.SPUFI.ICFSUS). The PDS must contain a member called $LIST, which contains a list of the spufis that are ready for processing. For a description of the format of the $LIST member, please see xxxx.PROD.SPUFI($LIST). This member also describes how to create the multiple members required for each spufi. Each full SPUFI consists of four members in the xxxx.PROD.SPUFI dataset. The members are named based on a 7 character spufi name (usually the programmer's initials plus a 4 character date). The eighth character of the member name contains one of the following suffixes :

    Updates
        C : Comment
        S : the SET statement (without the keyword "SET")
        T : the table to be updated (fully qualified)
        W : the WHERE clause (without the keyword "WHERE")
    Inserts
        C : Comment
        T : the table to be inserted into (fully qualified)
        Q : the QMF temp table containing the new rows
        W : the WHERE clause (without the keyword "WHERE")
    Deletes
        C : Comment
        T : the table to be delete from (fully qualified)
        W : the WHERE clause (without the keyword "WHERE")

The job xxxx.TOOLS.JCL(SPUFMBR) can be used to help create the members required.

When the $LIST member and the individual SPUFI members have been coded, the developer runs xxxx.TOOLS.JCL(SPUFICHK). This job formats the spufi members into executable spufi statements.

The most likely failure for this job is a rc=16 in the FT.ISPBATCH step. If you get a rc=16, scan the output for the word ERROR. Rc=16 indicates that an expected member in your personal SPUFI pds does not exist. The message will indicate "Imbed file ????? does not exist". Check your spufi library to make sure that this member exists and then re-run the job.

If SPUFICHK completes successfully, it will create and run the job yourid.TEMP.SPUFICHK. This second job further verifies your input. Possible failures in the SPUFICHK job include :

     IEBCOPY step -- this step must get a rc=0. If it gets a RC=4, search for the word SELECTED in the job output. If a member is missing from your SPUFI.xxxx library, it will appear in a "selected but not found" error. Sometimes a member is missing because you incorrectly identified the spufi type (U for update, D for delete, I for insert) or you may have just forgotten to code the required member. You need to fix your spufi library and start the process again.

     NOSEMIS step -- must receive RC=0. NOSEMIS will receive RC=1 if it finds any semicolons in your spufi input members. Semicolons are not allowed and must be removed from all members.

     BEFORE step -- must get rc <= 4. If it gets an 8, check the output of the step for invalid SQL. If you find invalid SQL, update the member in your SPUFI library and start the process over again

     VERIFY step -- must get rc=0. If it receives a non-zero return code, check the output for the DISCARD dataset. The spufis in the DISCARD dataset had incorrect BEFORE record counts.

     DROP - it's ok for this step to get rc=8

     TEST - this has to get rc=0. If it gets anything else, check the results for syntax errors.

     AFTER - rc = 4 is ok.

     AFTERCHK - must get rc=0. If it doesn't, check the DISCARD file to see if any of your AFTER counts don't match.

Setting up the SPUFI Machine in a New Environment

The following must be set up in order to enable an environment for the SPUFI machine process :

     all spufi developers must be in a RACF group that gives them SELECT access to all tables they'll be writing spufis against. This group name will be the SQLID in the spufick skeleton

     job appl.TOOLS.JCL(SPUFICHK) must be created for the application environment

     the skeleton DBDCPP.TOOLS.SKELS(SPUFICHK) must be updated with parameters for the new application name. The parameters are all set at the top of the skeleton (eg owner, sqlid, etc)

     a database with the same name as the developers RACF group must be created.   The RACF group must be granted DBADM authority on the new database

     the RACF must be granted use of the necessary stogroup

     appl.PRODHOLD.SPUFI must be created, with member $LIST

     In order to do inserts the user must have a user QMFSAVE area. The user profile must be updated to point to the DB and QMFSAVE tspace in order for them to access it.

EXHIBIT B

Disclosure AUS8-2001-0955
Prepared for and/or by an IBM Attorney - IBM Confidential

Created By John Kliewe On [REDACTED] 12:36:11 PM EDT
Last Modified By Enterprise Agentmgr On 01/18/2003 10:05:34 PM EST
Archived on 01/18/2003

Required fields are marked with the asterisk (*) and must be filled in to complete the form.

*Title of disclosure (in English)
SPUFI Machine

Summary

Status	Final Decision (File)
Final deadline	
Final deadline reason	
Docket family	AUS9-2001-0989
* Processing location	Austin
* Functional area	(93) 93 - GS (D. Elix)
Attorney/Patent professional	David Mims/Austin/IBM
IDT team	Vinny Ierace/Somers/IBM
Submitted date	[REDACTED] 12:51:32 PM EDT
* Owning division	GS
* Line of business	OTH - Other Primary Inventor's Line of Business (LoB)
* Industry/Sector	Other
* Competency	Other
Incentive program	
Lab	
* Technology code	

Inventors with a Blue Pages entry
Inventors: John Kliewe/White Plains/IBM

Inventor Name	Inventor Serial	Div/Dept	Inventor Phone	Manager Name
[> Kliewe, John M.	212709	07/4J5A	251-5393	Milch, Michael

> denotes primary contact

Inventors without a Blue Pages entry

IDT Selection

Attorney/Patent professional	David Mims/Austin/IBM
IDT team	Vinny Ierace/Somers/IBM
Response due to IP&L	08/11/2001

Main Idea

AUS8-2001-0955 SPUFI Machine - continued

To view the Main Idea of this disclosure, open the "Main Idea" document from the view

*Critical Questions (Questions 1-9 must be answered in English)

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*Question 1
On what date was the invention workable? ███████ Please format the date as MM/DD/YYYY
(Workable means i.e. when you know that your design will solve the problem)

---

*Question 2   ○ Yes
Is there any planned or actual publication or disclosure of your invention to   ● No
anyone outside IBM?

If yes, Enter the name of each publication or patent and the date published below.
Publication/Patent:
  Date Published or Issued:

Are you aware of any publications, products or patents that relate to this   ○ Yes
invention?   ● No

If yes, Enter the name of each publication or patent and the date published below.
Publication/Patent:
  Date Published or Issued:

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*Question 3   ○ Yes
Has the subject matter of the Invention or a product incorporating the invention ● No
been sold, used internally in manufacturing, announced for sale, or included in a
proposal?

Is a sale, use in manufacturing, product announcement, or proposal planned?   ○ Yes
                                                                               ● No

If Yes, identify the product if known and indicate the date or planned date of sale, announcements, or
proposal and to whom the sale, announcement or proposal has been or will be made.
      Product:
Version/Release:
    Code Name:
        Date:
     To Whom:
If more than one, use cut and paste and append as necessary in the field provided.

---

*Question 4   ○ Yes
Was the subject matter of your Invention or a product incorporating your   ● No
invention used in public, e.g., outside IBM or in the presence of non-IBMers?

If yes, give a date.   Please format the date as MM/DD/YYYY

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*Question 5   ○ Yes
Have you ever discussed your invention with others not employed at IBM?   ● No

If yes, identify individuals and date discussed. Fill in the text area with the following information, the
names of the Individuals, the employer, date discussed, under CDA, and CDA #.

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*Question 6   ○ Yes
Was the invention, In any way, started or developed under a government   ● No
contract or project?   ○ Not sure

If Yes, enter the contract number

AUS8-2001-0955 SPUFI Machine - continued

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*Question 7   ○ Yes
Was the invention made in the course of any alliance, joint development or other ● No
contract activities?   ○ Not Sure
If Yes, enter the following:

	Name of Alliance, Contractor or Joint Developer
	Contract ID number
	Relationship contact name
	Relationship contact E-mail
	Relationship contact phone

---

*Question 8   ○ Yes
Have you, or any of the other inventors, submitted this same invention   ● No
disclosure or similar invention disclosure previously?
If Yes, please provide disclosure number below:

---

*Question 9   ○ Yes
Are you, or any of the other inventors, aware of any related inventions   ● No
disclosures submitted by anyone in IBM previously?
If Yes, please provide the docket or disclosure number or any other identifying information below:

Question 10
What type of companies do you expect to compete with inventions of this type? *Check all that apply.*
☐ Manufacturers of enterprise servers
☐ Manufacturers of entry servers
☐ Manufacturers of workstations
☐ Manufacturers of PC's
☐ Non-computer manufacturers
☐ Developers of operating systems
☐ Developers of networking software
☒ Developers of application software
☒ Integrated solution providers
☒ Service providers
☒ Other (Please specify below)
Developers of Database Management software and utilities.

Question 11
If the invention relates to a product or service that is outside the scope of your business unit, please
recommend IBM business unit(s), IBM location(s) or individual(s) within IBM that you think would
provide a good evaluation of your invention:

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*Patent Value Tool (Optional - this may be used by the inventor and attorney to assist with the evaluation)

(The Patent Value tool can be used by the inventor(s) to determine the potential licensing value of your
invention.)
Market
***Question 1: What is the anticipated annual market size (in dollars) that will be captured by your

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AUS8-2001-0955 SPUFI Machine - continued

invention?

Reason(s) for above Answer:

Claims
*Question 1: How new is the technical field?

Reason(s) for above Answer:

*Question 2: How central is the invention to the product(s) which might be expected to contain the invention?

Reason(s) for above Answer:

*Question 3: What is the scope of the claim?

Reason(s) for above Answer:

Portfolio Need
*Question 1: What are the portfolio needs in the area of your Invention?

Reason(s) for above Answer:

Exploitation & Enforcement
*Question 1: How easily can the use of the invention by a competitor be detected?

Reason(s) for above Answer:

*Question 2: How easily can the use of the invention be avoided by a competitor?

Reason(s) for above Answer:

Business Value
*Question 1: What percentage of the companies producing products in the field of this invention might use this invention?

Reason(s) for above Answer:

*Question 2: What is the value of this patent to current or anticipated Alliance Activity between IBM and other companies?

Reason(s) for above Answer:

*Question 3: What is the value of this patent to current or anticipated Technology Transfer Activity between IBM and other companies?

Reason(s) for above Answer:

*Question 4: Does it result in prestige to IBM?

Reason(s) for above Answer:

Final Decision

This decision was entered by Nancy Werchan/Austin/IBM on 10/12/2001
Decision: File   Status: N/A

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AUS8-2001-0955 SPUFI Machine - continued

PPM area:
Date of final decision : 10/12/2001

Additional filing information
Planned Filing date: 12/07/2001
Filing comments:

Additional decision comments

Final Decison History

Entered on 12-Oct-2001 by Nancy Werchan
File N/A 12-Oct-2001 Docket Family: AUS920010989

Post Disclosure Text & Drawings
To add additional information related to this disclosure once it has been submitted, click the action button
below and a new document will be opened for you to enter the new information. To view existing post
disclosure information, double-click on the item in the list below (if there has been additional information
entered), and the document will open for you to view.
   Date entered   Post disclosure comments and drawings (double-click an item below to view)

Form Revised 09/01/02)

Main Idea for Disclosure AUS8-2001-0955 - continued

Main Idea for Disclosure AUS 8-2001-0955.
Prepared for and/or by an IBM Attorney - IBM Confidential

Archived On 10/13/2001 06:01:49 AM

Title of disclosure (in English)
SPUFI Machine

Main Idea

1. Describe your Invention, stating the problem solved (if appropriate), and indicating the advantages of using the Invention.
DB2 for OS/390 provides a mechanism for updating data on an ad hoc basis. The mechanism is known as SPUFI. The problem with using SPUFI to fix production data problems is that the developer is not able to test his code before it is run against the real data. The only way to safeguard the production data is to have a person with full update authority dedicated to the task of testing, verifying, and then running the data updates via SPUFI. This is a tedious and time-consuming process.
The SPUFI Machine allows developers to test their code in a non-production environment and then promote it up to the production environment for the final run. The promote process guarantees that the code cannot be changed between the time it is tested and the time it finally runs in the production environment. The SPUFI Machine then runs the updates, checks the results against the expected results, and notifies the customer of the final disposition of the data change.

2. How does the Invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?
The advantage here is that the developer can operate in a manner that is very similar to the standard way that developers operate. The developer writes their code, tests it, and then submits it for implementation in the customer's production environment. The existing standard for SPUFI updates requires that the developer test in his own test environment, and then have to make changes to the code before it gets run in the production environment. Changing the code for production is an error prone process, and generally requires the intervention of a DBA (Database Administrator), which can be expensive.

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.

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